

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the arguments set forth fully below. In the Office Action mailed January 18, 2007, claims 1-32 have been rejected. In response, the Applicants have submitted the following remarks, cancelled claims 1-32, and added new claims 33-54. Accordingly, claims 33-54 are now pending. Favorable reconsideration is respectfully requested in view of the new claims and the remarks below.

Claim Rejections Under 35 U.S.C. §112

Claims 1-20 have been rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement and as failing to comply with the enablement requirement. By the above amendments, the Applicants have cancelled claims 1-20. Therefore, the rejection under 35 U.S.C. §112, first paragraph, is now moot.

Claim Rejections Under 35 U.S.C. §102

Claims 21-26 have been rejected 35 USC §102(e) as being anticipated by U.S. Patent No. 6,950,698 to Sarkela et al (hereinafter "Sarkela"). By the above amendments, the Applicants have cancelled claims 21-26. Therefore, the rejection of claims 21-26 under 35 U.S.C. §102(e) is now moot.

Claims 21-26 have been rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 6,233,472 to Bennett et al (hereinafter "Bennett"). By the above amendments, the Applicants have cancelled claims 21-26. Therefore, the rejection under 35 U.S.C. §102(b) is now moot.

Claim Rejections Under 35 U.S.C. §103

Claims 27-32 have been rejected 35 USC §103(a) as being unpatentable over Bennett in view of U.S. Patent No. 6,389,312 to Duckert et al (hereinafter "Duckert"). By

the above amendments, the Applicants have cancelled claims 27-32. Therefore, the rejection under 35 U.S.C. §103(a) is now moot.

New Claims 33-54

The new claims 33-53 include the independent claims 33, 43 and 54 directed to a method for measuring anesthesia parameters from the head of a patient, and the independent claim 53 directed to a sensor arrangement for measuring anesthesia parameters from the head of a patient. As stated previously, the Examiner rejected the cancelled claims 1-32 with the Sarkela reference under 35 U.S.C. §102(e), the Bennett reference under 35 U.S.C. §102(b), and Bennett in combination with the Duckert reference under 35 U.S.C. §103(a).

Within the Office Action, it is stated that Sarkela shows a device with a base element having an array of electrodes that are on, and a connector 9. The Sarkela reference teaches a method of positioning electrodes in an electrode array, comprising at least five or at least seven electrodes for CNS monitoring from the forehead of a patient's head. The electrodes of the array are optimally located for discriminating EEC, FEMG and EM components from the recorded biopotential signals [Sarkela, Abstract].

Within the Office Action, it is stated that the Bennett reference shows a device with multiple electrodes positioned on a substrate 24, where the electrodes are NMT electrodes and EMG electrodes and are capable of measuring EEG, and where the electrodes connect through a connector. The electrode assembly is adapted to be attached to the skin over select facial muscle groups and picks up signals to be analyzed by an anesthesia adequacy monitor that measures the level of awareness of a living animal, typically a human being. The assembly also includes a stimulator to determine level of paralysis of facial muscles, and a method of manufacturing the electrode assembly by printing a pattern of electrically conductive material through silk screen or an ink-type process onto a flexible layer and coating the result with a non-conducting adhesive tape is also taught in Bennett [Bennett, Abstract].

The Duckert reference teaches a mechanical NMT sensor, which as stated in the Applicants' previous response, are well known in the art. Simply, the Duckert reference teaches a method and apparatus capable of providing a simplified neuro muscular transmission score utilizing multiple conventional stimulus modes [Duckert, Abstract].

The independent claims 33 and 54 are directed to a method for measuring anesthesia parameters from the head of a patient, comprising the steps of providing a base element of flexible material, the base element containing an array of at least three electrodes, an optical sensor or a connection to an optical sensor for monitoring substances in the patient's tissues, and a connector connecting the at least three electrodes and the optical sensor to a patient monitor, placing the base element on the patient's head so that a first electrode in the array of electrodes is located between the eyebrows of the patient at about the centerline of the forehead, using at least two of the electrodes in the array of electrodes to measure electroencephalography and muscle activity, and using the optical sensor to measure substances in the patient's tissues. Not only do the independent claims 33 and 54 require the prior art to teach the providing step and the placing step, but the claims also require that the prior art teach using at least two of the electrodes in the array of electrodes to measure electroencephalography and muscle activity, and using the optical sensor to measure substances in the patient's tissues. The Applicants respectfully submit that none of the cited prior art documents teach such functionality.

The independent claim 43 recites a method for measuring anesthesia parameters from the head of a patient, including an additional step of using the mechanical neuro muscular transmission sensor to measure neuro muscular transmission. The Applicants respectfully submit that the independent claim 43 is allowable for the same reasons as discussed with respect to the independent claims 33 and 54.

The independent claim 53 recites a sensor arrangement for measuring anesthesia parameters from the head of a patient comprising a base element that contains an array of at least three electrodes that are adapted to measure electroencephalography, muscle activity, and neuro muscular transmission, an optical sensor for monitoring substances in the patient's

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tissues, a mechanical neuro muscular transmission sensor, and a connector connecting the at least three electrodes, the optical sensor, and the mechanical neuro muscular transmission sensor to a patient monitor. The Applicants respectfully submit that none of the cited prior art documents teach such a sensor arrangement having a base element containing the electrode array, the optical sensor, and the connector.

For these reasons, Applicants respectfully submit that all the claims are now in condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

A handwritten signature in black ink, reading "Christopher M. Scherer". The signature is written in a cursive, flowing style with a large initial "C".

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